

# **Cobra Plus Assembly Instruction**

# Packing list

\* All pictures shown are for illustrative purposes only. The actual product may vary due to product optimization.



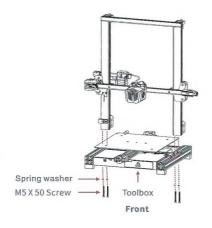


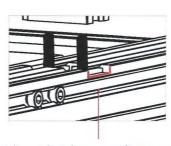
Filament for test

## Installation

(Please take out tools from toolbox at the front right of the base for assembly.)

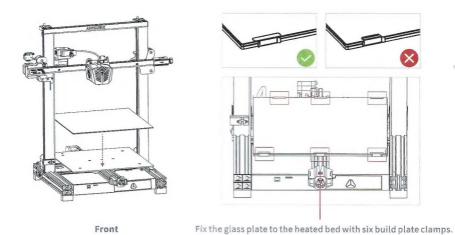
#### 1. Install frame.



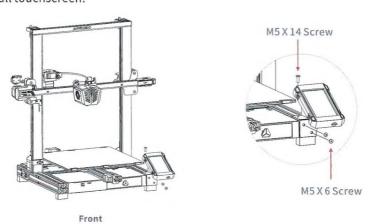


Make sure the Z aluminum profile is accurately mounted onto the groove of the base aluminum profile.

## 2. Install glass plate.



### 3. Install touchscreen.

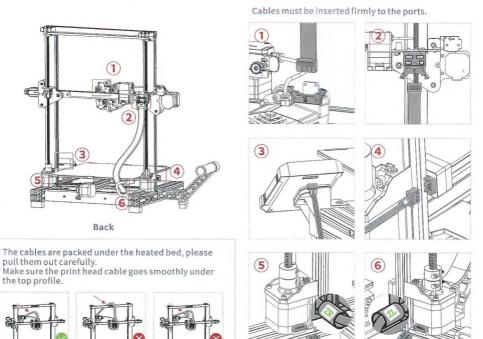


## 4. Install filament holder.

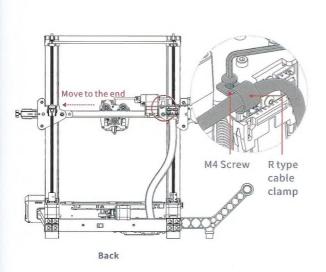


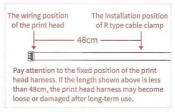
Front

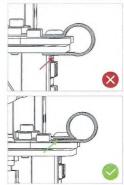
# 5. Wiring: connect all these cables to their ports following the corresponding label. **Do not connect or disconnect any cables when the machine is powered on.**



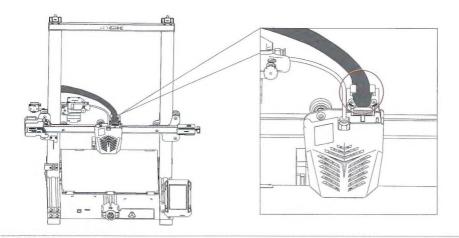
6. Move the print head to the end, then secure the print head harness into the bracket with an R type cable clamp and one M4 screw.







7. Insert the print head harness into the buckle.

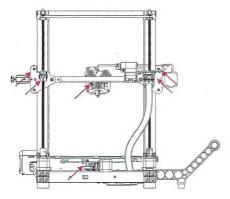


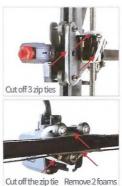
8. Use cable clips to tie the print head cable and Teflon tube together.
Pay attention to the position of the cable clips, and make sure there is no interference between the cable clips and the top profile when printing tall models.



## Check before use

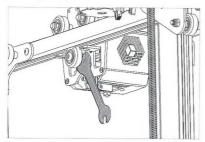
1. Remove the unwanted packing materials
Cut off the zip ties and move the print head to remove foams.



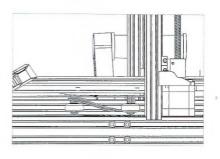




#### 2. D-shape wheels



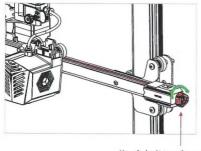
X axis: Shake the print head manually. If it wobbles, tighten the wheel by rotating the eccentric nut with an open-end wrench until the print head does not wobble and moves smoothly along the X axis.



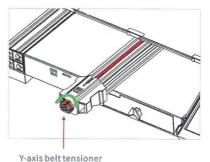
Y axis: Shake the printing platform manually. If it wobbles, tighten the wheels by rotating the eccentric nuts with an open-end wrench until the platform does not wobble and moves smoothly along the Y axis.

#### 3. Belts

Please tighten the belt tensioners if the belts are loose.

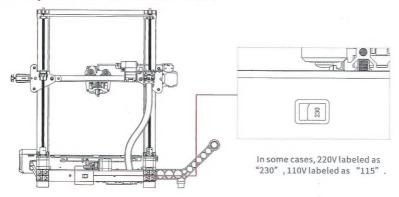


X-axis belt tensioner



## 4 Leveling

- \* Before leveling, please ensure that the platform and nozzle are clean and free of foreign matter to avoid affecting the leveling effect.
- 1. Select the correct voltage mode according to your local voltage ratings (~110V or ~220V) before plugging in. The red switch is inside the power supply casing and 220V is a default setting. Note: A hex key can be used to move the switch.



- 2. Double check the wirings, then plug in the power cord and power on the printer.
- 3. Return to main menu, then click "Prepare"  $\rightarrow$  "Leveling"  $\rightarrow$  "Auto-leveling". A pop-up window appears that prompts you to use a tool to touch nozzle for calibration. Note that you need to do the calibration within 1 minute.



3. When the calibration succeeds, the machine will home and preheat the print head and heated bed (If you manually heat them up to the target temperature before leveling, the preheating will be skipped automatically). When the machine reaches the target temperature, it will probe spots on the platform automatically. This process will take a few minutes, please be patient.

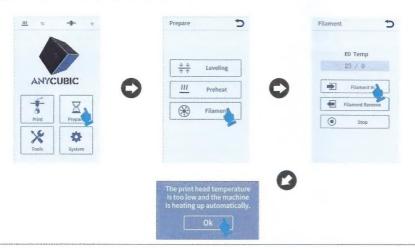
\* Please do not touch the nozzle and heated bed to prevent scald.

## 6 Loading filament

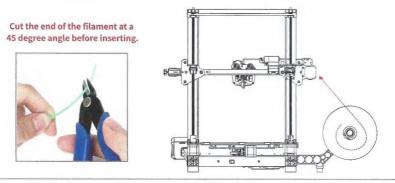
1. Return to main menu, click "Tool"  $\to$  "Move Axis", click " $\overset{\blacktriangle}{z}$ " continuously to rise the print head, so that there is enough space for loading.



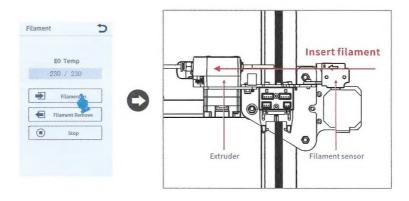
2. Return to main menu, click "Prepare"  $\rightarrow$  "Filament"  $\rightarrow$  "Filament In", and the heating interface will pop up, click "OK".

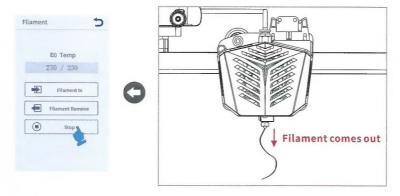


3. Cut and straighten the end of filament, then place the filament spool on the filament holder. (Note the direction of filament)

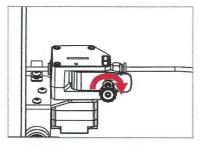


4. Check the temperature on the screen. When the nozzle reaches the target temperature, click "Filament In" again. Pass the filament through filament sensor, and insert it to the extruder until it is fed by the extruder. When the filament comes out smoothly at the nozzle, click "Stop". You may use tweezers to clean the filament residue on the nozzle tip.

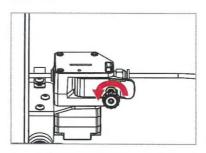




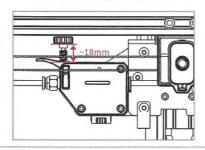
Note: During feeding, if the extruded filament is not smooth or too thin, please adjust the extrusion force by rotating the knob as shown below.



If the filament is not extruded or extrusion is not smooth, please increase the extrusion force by tightening the knob.



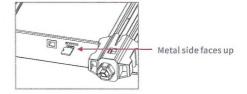
If the extruded filament is too thin, please reduce the extrusion force by loosening the knob.



Note: The optimal distance of knob for extruding filament is about 18 mm.

## 6 Printing

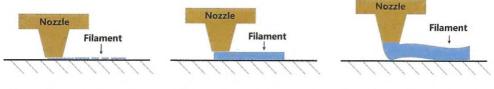
- \* GCode file name should only contain English letters, underscore and space. File name contains special characters could not be recognized by the printer.
- \* In order for the printer to better recognize the GCode file in the memory card, you need to back up all the files in the memory card to the computer, and keep the memory card only for the GCode file. Please save all the GCode files in root directory of the memory card.
- 1. Insert the included memory card into the memory card slot at the base. A file "owl.gcode" has been preloaded on the memory card. (owl, author: etotheipi, www.thingiverse.com)
  (Tip: To eject the SD card, please press it.)



2. On main menu, click "Print" to enter the file list. Click the "owl.gcode" and "Print" for the test printing.



- 3. Printer starts printing when temperature reaches target value. (Note: The nozzle will start heating after the heated bed reaches target temperature.)
- 4. There might be three kinds of results for the first or second layer of the test print. Please fine-tune the height of the Z axis according to the adhesion between the filament and the platform.



- Nozzle is too close to the platform, resulting in insufficient extrusion of filament.
- ② Proper distance between nozzle and platform can achieve the best printing effect.
- ③ Nozzle is too high and the gap is large, which lead to poor adhesion of filament to the platform.

In case of configuration ①, please click "Settings"  $\to$  "Z-offset"  $\to$  "+" to rise the print head.

In case of configuration  $\ \ \, \ \ \,$  , please click "Settings"  $\to$  "Z-offset"  $\to$  "—" to lower the print head.



#### Notes:

- ① Adjust the Z-offset value in real time according to the printing effect until the printing effect is satisfied.
- ② After adjusting the offset setting, click "OK" on the settings interface, and the offset will be effective for subsequent printing; if you only click the Return button without clicking "OK", the offset will only be effective for this printing.
- 5. The nozzle and heated bed are still in high temperature when printing finishes. Make sure to wait for nozzle and heated bed to cool down before removing the model from the printing platform.

Note: Refer to the full user manual in the memory card for online printing and offline printing.

## Removing filament

- 1. Return to main menu, click "Tool"  $\rightarrow$  "Move Axis", click " $\frac{1}{z}$ " continuously to rise the print head, so that there is enough space between the nozzle and platform.
- 2. Return to main menu, click "Prepare"  $\to$  "Filament"  $\to$  "Filament Remove", and the heating interface will pop up, click "OK".
- 3. Check the temperature on the screen. When the nozzle reaches the target temperature, click "Filament Remove" again. The extruder will extrude a few filament first and then retract it to the gear. You need to pull out the filament in time to avoid clogging. If you can not pull it out, please press the extruder handle and pull it out quickly. Finally, click "Stop".

### Attention

- 1. Anycubic 3D printer includes moving parts that may cause injury.
- 2. Any cubic 3D printer must not be exposed to water or rain.
- 3. Anycubic 3D printer generates high temperature. DO NOT reach the printing area during operation. Contact with extruded materials may cause burns.
- 4. Use high temperature resistant gloves when operating the product.
- 5. In case of emergency, please immediately cut off the power of the printer and contact the technical support.
- 6. This equipment is not suitable for use in locations where children are likely to be present.
- 7. The fuse rating for the printer is 250V 10A. Never replace the fuse with one of a higher amperage, otherwise it may cause fire.
- 8. The socket-outlet shall be easily accessible.
- 9. If there are some tiny scratches on the aluminum beams or slight unevenness on the platform, it is normal and won't affect the printing quality.

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